

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) An information processing apparatus comprising:
generating means for generating ClipMark formed by a mark specifying a characteristic picture extracted from an input AV stream, as management information for supervising the AV stream, and for generating PlayListMark, formed by marks pointing to a picture optionally specified by a user, from a reproduction domain corresponding to a PlayList defining the combination of preset domains in said AV stream; and

recording means for recording said ClipMark and PlayListMark as respective independent tables with a predetermined format on a recording medium,

wherein the PlayList comprises a Real PlayList and a Virtual PlayList, the Real PlayList co-owning a stream portion referenced by the Real PlayList, the Virtual PlayList not co-owning a stream portion referenced by the Virtual PlayList,

wherein the PlayList comprises a plurality of playback domains represented by a pair of an IN-point and an OUT-point on a time axis, and

wherein the mark stored in the ClipMark of the Clip referenced by the PlayList is capable of being a reference when the PlayList is reproduced.

2. (Previously Presented) The information processing apparatus according to claim 1

wherein said generating means generates said ClipMark and said PlayListMark as a first syntax of a ClipInformation file and as a second syntax of a PlayList file, respectively.

3. (Canceled)

4. (Original) The information processing apparatus according to claim 1 wherein, in reproducing said PlayList, said mark forming the ClipMark of said AV stream corresponding to the reproduction domain of said PlayList is referenced.

5. (Previously Presented) The information processing apparatus according to claim 1

wherein said mark of the PlayListMark comprises presentation time stamp and the identification information for indicating one reproduction domain specified on said AV stream data forming the reproduction route of said PlayList.

6. (Previously Presented) The information processing apparatus according to claim 1

wherein said mark forming the ClipMark or said mark forming said PlayListMark comprises the information specifying an entry point of an elementary stream.

7. (Previously Presented) The information processing apparatus according to claim 1

wherein said mark of the PlayListMark comprises the information of the type at least including the Resume point of the start point of a favorite scene or a Resume point of the PlayList specified by a user.

8. (Original) The information processing apparatus according to claim 1 wherein said mark of the ClipMark and said mark of the PlayListMark are represented by an address of a relative source packet corresponding to an entry point of said AV stream.

9. (Original) The information processing apparatus according to claim 8 wherein said mark of the ClipMark and said mark of the PlayListMark are represented by a first address of a relative source packet corresponding to an entry point of said AV stream and by a second address of an offset from said first address, respectively.

10. (Original) The information processing apparatus according to claim 1 further comprising:

type detection means for detecting the type of said characteristic picture detected at the time of recording by said first recording means;

said first recording means recording said mark forming said ClipMark and said type as detected by said detection means.

11. (Previously Presented) The information processing apparatus according to claim 1

wherein said mark of said ClipMark comprises a scene change point, a commercial start point, commercial end point or a title displaying scene.

12. (Currently Amended) An information processing method comprising:
a step of generating ClipMark formed by a mark specifying a characteristic picture extracted from an input AV stream, as management information for supervising the AV stream, and of generating PlaylistMark, formed by marks pointing to a picture optionally specified by a user, from a reproduction domain corresponding to a Playlist defining the combination of preset domains in said AV stream; and

a step of recording said ClipMark and PlaylistMark as respective independent tables with a predetermined format on a recording medium,

wherein the Playlist comprises a Real Playlist and a Virtual Playlist, the Real Playlist co-owning a stream portion referenced by the Real Playlist, the Virtual Playlist not co-owning a stream portion referenced by the Virtual Playlist,

wherein the Playlist comprises a plurality of playback domains represented by a pair of an IN-point and an OUT-point on a time axis, and

wherein the mark stored in the ClipMark of the Clip referenced by the Playlist is capable of being a reference when the Playlist is reproduced.

13.(Currently Amended) A computer-readable medium for storing program code, ~~said program code including an executable program, when executed, causing a computer to process information, the executable program comprising:~~

a step of generating ClipMark formed by a mark specifying a characteristic picture extracted from an input AV stream, as management information for supervising the AV stream, and of generating PlayListMark, formed by marks pointing to a picture optionally specified by a user, from a reproduction domain corresponding to a PlayList defining the combination of preset domains in said AV stream; and

a step of recording said ClipMark and PlayListMark as respective independent tables with a predetermined format on a recording medium,

wherein the PlayList comprises a Real PlayList and a Virtual PlayList, the Real PlayList co-owning a stream portion referenced by the Real PlayList, the Virtual PlayList not co-owning a stream portion referenced by the Virtual PlayList,

wherein the PlayList comprises a plurality of playback domains represented by a pair of an IN-point and an OUT-point on a time axis, and

wherein the mark stored in the ClipMark of the Clip referenced by the PlayList is capable of being a reference when the PlayList is reproduced.

14-23. (Canceled)

24. (Previously Presented) The information processing apparatus according to claim 1

wherein said PlayListMark further comprises a mark specifying a Resume point in reproducing said PlayList.

25. (Currently Amended) An information processing apparatus for reproducing data from a recording medium having recorded thereon an AV stream, ClipMark formed by a mark pointing to a characteristic picture extracted from said AV stream, and PlayListMark, formed by a mark pointing to a picture optionally specified by a user, from a reproduction domain corresponding to a PlayList defining the combination of preset domains in said AV stream, said information processing apparatus comprising:

reproducing means for reproducing data from said recording medium; and

control means for acquiring a recording position corresponding to said mark stated in the ClipMark or PlayListMark reproduced and for controlling said reproducing means responsive to the so acquired recording position,

wherein the PlayList comprises a Real PlayList and a Virtual PlayList, the Real PlayList co-owning a stream portion referenced by the Real Playlist, the Virtual PlayList not co-owning a stream portion referenced by the Virtual PlayList,

wherein the PlayList comprises a plurality of playback domains represented by a pair of an IN-point and an OUT-point on a time axis, and

wherein the mark stored in the ClipMark of the Clip referenced by the PlayList is capable of being a reference when the PlayList is reproduced.

26. (Previously Presented) The information processing apparatus according to claim 25 further comprising:

presentation controlling means for managing control to cause a list by a thumbnail picture associated with said PlayListMark to be presented to a user.

27. (Currently Amended) An information processing method for reproducing data from a recording medium having recorded thereon an AV stream, ClipMark formed by a mark pointing to a characteristic picture extracted from said AV stream, and PlayListMark, formed by a mark pointing to a picture optionally specified by a user, from a reproduction domain corresponding to a PlayList defining the combination of preset domains in said AV stream, said information processing method comprising:

a reproducing step of reproducing data from said recording medium; and

a controlling step acquiring a recording position corresponding to said mark stated in the ClipMark or PlayListMark reproduced and for controlling said reproducing step responsive to the acquired recording position,

wherein the PlayList comprises a Real PlayList and a Virtual PlayList, the Real PlayList co-owning a stream portion referenced by the Real PlayList, the Virtual PlayList not co-owning a stream portion referenced by the Virtual PlayList,

wherein the PlayList comprises a plurality of playback domains represented by a pair of an IN-point and an OUT-point on a time axis, and

wherein the mark stored in the ClipMark of the Clip referenced by the PlayList is capable of being a reference when the PlayList is reproduced.

28. (Currently Amended) ~~A computer-readable medium adapted to store a computer program that when executed by a computer reproduces~~for storing an executable program, when executed, causing a computer to produce data from a recording medium having recorded thereon an AV stream, ClipMark formed by a mark pointing to a characteristic picture extracted from said AV stream, and PlayListMark, formed by a mark pointing to a picture

optionally specified by a user, from a reproduction domain corresponding to a PlayList defining the combination of preset domains in said AV stream, said executable program comprising:

a reproducing step of reproducing data from said recording medium; and

a controlling step of acquiring a recording position corresponding to said mark stated in the ClipMark or PlayListMark reproduced and for controlling said reproducing means responsive to the acquired recording position,

wherein the PlayList comprises a Real PlayList and a Virtual PlayList, the Real PlayList co-owning a stream portion referenced by the Real PlayList, the Virtual PlayList not co-owning a stream portion referenced by the Virtual PlayList,

wherein the PlayList comprises a plurality of playback domains represented by a pair of an IN-point and an OUT-point on a time axis, and

wherein the mark stored in the ClipMark of the Clip referenced by the PlayList is capable of being a reference when the PlayList is reproduced.

29-30. (Canceled)

31. (Previously Presented) The information processing apparatus according to claim 25

wherein said mark corresponding to ClipMark and said mark corresponding to said PlayListMark are represented by an address of a relative source packet corresponding to an entry point of said AV stream.

32. (Previously Presented) The information processing apparatus according to claim 17

wherein said mark of the ClipMark and said mark of the PlaylistMark are represented by a first address of a relative source packet corresponding to an entry point of said AV stream and by a second address of an offset from said first address, respectively.

33. (Previously Presented) The information processing apparatus according to claim 25

wherein said mark of said ClipMark comprises a scene change point, a commercial start point, a commercial end point or a title displaying scene.